LISTING OF THE CLAIMS

This listing of the claims supersedes all previous listing.

1. (Previously Presented) An automated method of classifying a cytological sample, comprising:

providing a cytological sample in solution in a vessel;

optically interrogating the solution with at least one wavelength of light;

determining whether a result of said interrogation meets a criterion;

attaching a positive designator to the sample vessel if the result meets the criterion; and

attaching a manipulation designator to the sample vessel if the result does not meet the criterion.

2. (Previously Presented) The method of claim 1, wherein the positive designator designates the sample as satisfactory for performing an assay.

3. (Previously Presented) The method of claim 2, wherein performance of the assay comprises preparing a specimen slide from said sample.

4. (Previously Presented) The method of claim 2, wherein the sample meets the criterion if it contains sufficient cells for performing the assay.

5. (Previously Presented) The method of claim 4, wherein the cells are prokaryotic, eukaryotic, or archea type cells.

6. (Previously Presented) The method of claim 1, wherein the positive designator indicates that the sample is satisfactory for automated slide preparation.

7. (Previously Presented) The method of claim 1, wherein the positive designator indicates that the sample is adequate in quantity to allow for withdrawal of a portion of the sample for performing an assay.

8. (Previously Presented) The method of claim 1, wherein the manipulation designator indicates that acquisition of an additional sample is needed for performing an assay.

9. (Previously Presented) The method of claim 1, wherein the manipulation designator indicates that treatment of the sample is needed prior to performing an assay.

10. (Original) The method of claim 9, wherein the treatment comprises adding acetic acid to the sample.

11. (Original) The method of claim 9, wherein the treatment comprises adding a reducing agent to the sample.

12. (Previously Presented) The method of claim 1, wherein the criterion is a concentration of cells in the sample.

13. (Previously Presented) The method of claim 1, wherein the criterion is a concentration of cells of a particular type in the sample.

14. (Original) The method of claim 13, wherein the cells are endocervical cells.

15. (Previously Presented) The method of claim 1, wherein the criterion is a level of mucus in the sample.

16. (Previously Presented) The method of claim 1, wherein the criterion is a level of blood in the sample.

17. Canceled.

18. (Original) The method of claim 1, wherein the sample is mixed prior to optically interrogating the solution.

19. (Previously Presented) The method of claim 18, wherein the mixing is performed manually.

20. (Previously Presented) The method of claim 18, wherein the mixing is performed automatically.

21. (Previously Presented) The method of claim 1, wherein the positive designator comprises a marking on the vessel.

22. (Original) The method of claim 1, wherein the positive designator comprises a designation in an electronic memory.

23. (Original) The method of claim 1, wherein the manipulation designator comprises a marking on the vessel.

24. (Original) The method of claim 1, wherein the manipulation designator comprises a designation in an electronic memory.

25. (Previously Presented) The method of claim 1, wherein the method is performed simultaneously with obtaining the sample from a subject.

26. (Currently Amended) The method of claim [[25]] 1, wherein the method is performed in conjunction with obtaining the sample from a subject.

27. (Currently Amended) The method of claim [[1]] 7, further comprising preparing a slide from the sample after ~~removing~~ withdrawal of said portion.

28. (Original) The method of claim 1, wherein the sample is selected from the group consisting of blood; urine; semen; milk; sputum; mucus; plueral fluid; pelvic fluid; sinovial fluid; ascites fluid; a body cavity wash; eye brushing; skin scrapings; a buccal swab; a vaginal swab; a pap smear; a rectal swab; an aspirate; a needle biopsy; a section of tissue; plasma; serum; spinal fluid; lymph fluid; an external secretion of the skin, respiratory, intestinal,

or genitourinary tract; tears; saliva; a tumor; an organ; a microbial culture; and an in vitro cell culture constituent.

29. (Original) The method of claim 1, wherein the sample comprises a water-soluble alcohol in an amount effective to preserve the sterility of the solution toward at least one contaminant.